

# MEDICAL INFORMATION

HEADQUARTERS  
USARCENT  
FORT MCPHERSON, GA 30330

ACEN – OSS

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Prevention of Deep-vein Thrombosis/Pulmonary Embolism (PE)

1. POINTS:

- a. **Background.** Soldiers, civilians, and contractors are subject to frequent flights into the CENTCOM AOR. A health consideration of long flights is the possibility of the development of deep-vein thrombosis and/or pulmonary embolism. Deep-vein thrombosis (DVT) is the formation of a blood clot in a deep vein, most commonly in the veins of the calf or thigh. In some cases, blood clots may dislodge and travel through the blood vessels to the lungs, causing a Pulmonary Embolism (PE).
- b. **Impact.** The risk for the development of DVT and/or PE is greatest for flights longer than 8 – 10 hours. Immobility and limited movement space increases the risk of formation of DVTs. The risk of developing DVT when traveling is very small. In most cases of DVT, the clots are small and do not cause any symptoms. PEs may obstruct blood flow and cause life-threatening complications, including sudden death. The incidence of severe pulmonary embolism during air travel, however, appears to be low.
- c. **Risk Factors.** People with these conditions should consult with a physician before traveling:
  - Recent surgery (esp. abdominal and orthopedic) or hospitalization
  - Oral contraceptive usage and /or hormone replacement therapy
  - Family history or previous history in the development of DVT
  - Genetic or acquired blood-clotting abnormalities
  - Advanced age
  - Obesity
  - Tobacco usage
  - Chronic swelling of the legs or feet
  - Varicose veins
  - Pregnancy
  - Cancer
  - Stroke
- d. **Symptoms:** Travelers with any of these symptoms should immediately seek medical attention. The classical symptoms of DVT include:
  - Pain
  - Swelling and redness of the foot, ankle, or calf on one side
  - Dilation of the surface veins
  - Increased warmth over the affected area.
  - The chief symptoms of PE are:
  - Chest pain
  - Difficulty breathing
  - Shortness of breath
  - Dizziness
  - Fainting, anxiety, and/or rapid pulse.
- e. **Prevention:** To prevent the development of blood clots on long plane flights, the following measures are recommended:
  - Wear comfortable, loose-fitting clothing and take off boots
  - Place carry-ons where it will not limit leg movement
  - Walk about the cabin at regular intervals
  - Contract the leg muscles periodically while sitting and avoid crossing legs
  - Drink plenty of fluids and avoid alcohol and tobacco
  - Change position frequently while seated;
  - Wear compression stockings or support hose to reduce leg swelling and encourage blood flow.
  - DO NOT USE ASPIRIN JUST FOR THE PREVENTION OF TRAVEL-RELATED DVT.

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